

Mechanical Booster Heart

July 18, 1962

Implantable Experiment (Exp. No B-7)

Subject: Implantation of Silastic Bladder
Patency Experiment

Material, Silastic Woven Teflon Bladder (Neimeth S.R. No. 2 Type)
How to connect , Suturing
Dog used : No
Weight

Operation procedure:

- 1, Abdominal Median Incision
- 2, Mobilize the abdominal aorta
Under the left renal artery to the bifurcation
10 cm in length
1.2 in inner diameter
- 3, Clamp the aorta, just below the left renal artery and just over the bifurcation.
- 4, Cut the aorta at the 1 cm distal from the upper clamp.
- 5, Suture the cutting aorta to the teflon graft of the bladder. Accidentally sutured both wall of the aorta in one stitch. Cut the sutured part and restart the suture.
- 6, Pull the sutured bladder and measured the length, then cut off the distal part of aorta about 2cm proximal from the distal clamping.
- 7, Sutured the other end of the bladder with the distal end of aorta.
- 8, Compress the bladder, then open the upper clamping.
- 9, After making sure of filling the blood completely in the bladder, open the distal clamping.
- 10, Additional one suture.
- 11, Bleeding stopped without administering polybrene.

Blood transfusion 1000ml (40 mg of Heparine)
5% Glucose Solution 500ml.

Distemper; 0.5 g Streptomycin
4 Million Unit of Penicillin.

After the operation

- 18, July. awakend , drink water from hand
Bio-Delta 5cc inj.
- 19, July appetit good, milk and meat from the hand.
Pulsation of both femoral artery is palpable.
Bio-delta 5ccInj.
- 20, July Conjunctivitis, Rhinorrhoe,
Appetit good , generalcondition good.
Bio-Delta 5cc inj.
- 21, July Diarrhea, Appetit good.
Take him out for walking. Bio-delta 5ccInj.
- 22, July Diarrhea, Conjunctivitis, Rhinorrhoe decreaded.
Fieber, sleightly .
- 23, July Fiebersleightly, Sleight infection at the sub-
cutaneous of the incision, open the wound ,and
make a drainage.
Penicillin 1 million.
- 24, july Penicillin 1million
- 25, July Penicillin 1 million
- 26, July Penicillin 1 million
- 27, July Condition is q̄uite well, appetit good.
Sleight fieber . Subcutaneous infection , no exsudate.
Take him out for walking.
- 28, July Condition is q̄uite well.
Both leg is warm and both femoral pulse is palpable.

change the Room

Experimental data

31, July 1962

Mechanical Booster Heart.

Implantable experiment(Exp.No B-9)

Subject: Implantation of the silastic bladder
Patency Experiment

No pressure recording

Material ; Silastic Woven Teflon Bladder(Neimeth S.R. No2 Type)
How to connect : Suturing

Dog used: NO 371

Operation Procedure:

- 1, Abdominal median incision.
- 2, Mobilize the abdominal aorta,
under the left renal artery to the bifurcation
11 cm in length.
1.0 mm in diameter
- 3, Clamp themobilized aorta just below the left renal artery
and just above the bifurcation.
- 4, Resect the aorta about 1.5 cm left .
- 5, Suturing the aorta to the bladder with 0000 surgical silk
continuously.
- 6, After the opening the above clamp , open the lower clamp.
- 7, a sleight bleeding from the anastomosis part, additional
one suture to the upper suture.
- 8, Closure, the abdominal median incision.

Blood transfusion; 1000 ml(Containg 40 mg of Heparine)
5% Glucose solution; 500 ml.

1 Million unit of penicillin.

Transfusion is applied from the cephalic vein, and it is not
so good for running, then from the branch of the portal vein
transfusion is attempted.

The implanted bladder is not so pressed to the vena cava.

The length of the bladder is suitable and there is no kink.

Once blood pressure was low for the delay of the blood transfusion.

Experimental Data.

Aug 1, 1962

mechanical Booster heart.

*Died 5 days of
the operation*

Implantable experiment(Exp.No B-10)

Subject: Implantation of the silastic bladder
Patency experiment

No pressure Recording

Material: Silastic Woven teflon bladder(Neimeth S.R. No2 Type)

How to connect: Suturing

Dog used: No 383

Operation procedure:

1. Abdominal median incision.
2. Mobilize the abdominal aorta,
under the left renal artery to the bifurcation
9. cm in length
1.0 in diameter
3. Clamp the mobilized aorta just below the left renal artery and just above the bifurcation.
4. Resect the aorta at the 1.5 cm apart from the upper clamping, and suture the teflon graft at the end of the bladder, with it.
5. Measure the length of the bladder, and cut the distal end of the aorta. Suture the other end of the bladder with distal end of the aorta.
6. Open the upper clamping and fill the blood within the bladder, then open the lower clamping.
7. Bleeding is not so much and stop within several minutes.
8. Closure, the abdominal median incision.

Blood transfusion ; 1000 ml(Containing 40 mg of heparine)
5% Glucose Solution; 200ml

1 million unit of penicillin
0.5 g of Streptomycin.

Transfusion is applied from the right femoral vein,
and I am afraid for the tendency of clotting .

After the operation.

He can eat from the operation day and can stand up.

After 3 days of the operation, He can not stand up suddenly.

Died 5 days of the operation by the cause of the occlusion.

Specimen is preserved.

Experimental Data.

Aug3, 1962

Mechanical Booster Heart

Implantable Basic Experiment(Exp.NoB-10)

Subject: Implantation of the silastic bladder
Patency experiment

No pressure recording

Material: Silastic Woven Teflon Bladder (Neimeth S.R.No2 Type)

How to connect: Suturing

Dog used: No391

Operation Procedure:

Same as Exp.No10

After the operation.

After the operation his condition is completely well.
after 5 days of the operation, suddenly he can not stand up.
His legs under the knee is cold and femoral pulse is not palpable.

Died 13 Days after the operation by the cause of the occlusion.

13 Days.

Experimental Data

Aug7,1962

Mechanical Booster Heart.

implantable Basic Experiment (exp.No B-12)

Subject: Implantation of the Bladder
Patency Experiment

Material Silastic Woven TeflonBladder(Neimeth S.R.No2.Type)

How to connect: Suturing

Dog Used: No.409

Operation procedure:

Same as Exp.No 10

After the operation:

After the operation his condition was completely well, He could eat well and walked well.

Suddenly , He could not stand up, his both legs under the knieis cold and could not palpable the femoral pulsation.

He died 6 days after the operation.

Postmortan examination:

By the cause of clott,the bladder is occluded.
Specimen is preserved.

6 days

Experimental Data

Aug 8, 1962

Mechanical Booster heart.

8 days +

Basic experiment----Experimental No B-13

Subject: Ist plantation of the Bladder
Patency experiment

Material: Silastic woven Teflon Graft Bladder(Neimebh S.R. No2.Type)

How to connect: Suturing

Dog used: No392

Operation Procedure:

Same as Exp.No 10

After the Operation:

After the operation his condition was completely well.
He could walk ,eat and same as before.

After 6 days of the operation,He can not stand up and can not feel the
the pulsation at the femoral artery.

He died after 8 days of the operation.

Postmortan Examination:

Occlusion at the bladder.Specimen is preserved.

Experimental Data:

Aug 10, 1962

Mechanical Booster Heart

6 days 1

Basic Experiment-----Experimental Data No-B-14

Subject: Implantation of the bladder
Patency Experiment

Material Silastic -woven teflon bladder (Neimeth S.R. No2.Type)

How to connect: suturing

Dog used: No 415 0397 ?)

OPERATION PROCEDURE:
Same as experimental No 10.

After the operation: *df*

After 3 days of the operation occlusion occurred suddenly and he fell in paralysis of the lower legs. Before that his condition was quite well.

He died 6 day after operation

Postmortan examination..
Occlusion of the clott.